



## Agenda Harper County Board Of County Commissioners Harper County Courthouse

Monday, October 3, 2016 - 9:00 a.m.

A. Call To Order

B. Pledge Of Allegiance

C. Public Comment

Citizens are encouraged to speak to items on the agenda when recognized by the Chairman. Citizen desiring to speak to matters not on the agenda may do so at this time. Comments are limited to five (5) minutes and the Commission will take no action on items not on the agenda. Items introduced under Public Comment may become agenda items at a later date.

D. Approval Of Minutes

E. Payment Of Vouchers

F. Items Of Business

1. Greg Barlow - Noxious Weeds - 9:15 A.m.

- Department Update

2. Mike Feist - Solid Waste - 9:30 A.m.

- 2017 Budget

3. Kristie Clark - HR - 9:45 A.m.

- Department Update

4. Janis Knox - County Attorney - 10:00 A.m.

- Executive Session

5. Melinda McCurley - Community/Econ Development - 10:30 A.m.

- Department Update

6. Department Head Meeting - 11:00 A.m.

- Health Department Basement

7. John McClure, Road And Bridge - 11:30 A.m.

- Department Update
- NW 100 Ave Damage Estimate

- KDOT 2018 Bridge Replacement Project
- Soil Sample Selection

Documents:

[COPY OF MAP 9 19-23 2016.PDF](#)  
[9 19-23 2016.PDF](#)  
[GSI ENGINEERING 093016.PDF](#)  
[KDOT 2018 BRIDGE COST SHARE.PDF](#)  
[CIRCLE C NW 100 DAMAGE ESTIMATE.PDF](#)  
[TERRA CON 093016.PDF](#)

8. Lunch Break - 12:00 Pm To 1:00 Pm

9. Andale Construction - 1:00 P.m.

- Road Project Update

10. Lori Reedy - Appraiser - 1:30 P.m.

- Landfill Appraisal

11. Joanna Kenney - EMS - 1:45 P.m.

- Department Update

12. Unfinished Business - 2:00 P.m.

G. Correspondence

H. Adjourn

September 19-23, 2016		NW 170 AVE NW 160 AVE NW 150 AVE NW 140 AVE NW 130 AVE NW 120 AVE NW 110 AVE NW 100 AVE NW 90 AVE NW 80 AVE NW 70 AVE NW 60 AVE NW 50 AVE NW 40 AVE NW 30 AVE NW 20 AVE NW 10 AVE N HP CO AVE NE 10 AVE NE 20 AVE NE 30 AVE NE 40 AVE NE 50 AVE NE 60 AVE NE 70 AVE NE 80 AVE NE 90 AVE NE 100 AVE NE 110 AVE NE 120 AVE NE 130 AVE																														<div><div></div>KENT</div> <div><div></div>LAWRENCE</div> <div><div></div>BRANDON</div>					
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## **HARPER COUNTY ROAD & BRIDGE**

### **Weekly County Commission Report**

September 19-23, 2016

#### **KENT STONEBRAKER-EAST FOREMAN**

1. Graders 256 & 259 grading ditches on Rd 753-H. Excavator 635 cleaning dirt out from under guard rail at Bridge 672-19 to prevent water from standing on road. Mowing Tractor 251 mowing ditches. Trimmed & hauled off tree limbs from the DOA parking lot. Truck 310 to Anthony Repair Shop for a service. Dozer 627 pushing up sand at the Wimmer Pit. Graders patrolling.
2. Grader 259 & Truck 216 to Anthony Repair Shop for a service. Truck 310 hauling shale to field entrance along Rd 753-E. Graders patrolling. Excavator 635 installing x-pipe on Rd 702-27 & cleaning ditches along Rd 761-V. Mowing Tractor 251 mowing ditches. Dozer 627 pushing up sand at the Wimmer Pit. Trucks 305, 310 & 606 hauling shale to washouts on Rd's 753-E & 746-E & F. Graders 256 & 259 grading ditches along Rd 753-H.
3. Graders 256 & 259 grading ditches along Rd 753-H. Excavator 635 loading dirt out of ditch along Rd 761-V onto Truck 216 to be hauled off. Truck 606 hauling shale to Rd 660-23. Mowing Tractor 251 mowing ditches. Graders patrolling. Resetting downed signs.
4. Mowing Tractor 251 mowing ditches. Excavator 635 cleaning ditches along Rd 694-22. Excavator 635 working on washed out x-pipe on Rd 670-28. Dozer 627 pushing up sand at Wimmer Pit. Trucks 310 & 216 hauling shale to Rd's 670-27 & 761-E & F.
5. Mowing Tractor 251 mowing ditches. Trucks 216, 310 & 606 hauling shale to Rd 670-26. Trucks 216 & 310 hauling sand to Rd 753-H. Truck 605 hauling Dozer 627 to Anthony Repair Shop. Graders patrolling.

#### **JIM THOMPSON-SHOP FOREMAN**

1. #310 2006 Sterling Truck, service job @ 227,844 miles.
2. #259 CAT 120M, service job @ 7,823 hours. #216 2006 Sterling Truck, service job @ 210,393 miles. #683 JCB Backhoe, worked on hydraulic cylinder repairs.
3. Sheriff Department 2016 Dodge Pickup, service job @ 5,624 miles. #611 Ford Welding Truck, engine oil leak repairs. #683 JCB Backhoe, installed new hydraulic cylinder shaft.
4. #611 1997 Ford, finished up work. #627 CAT Dozer, service call- track link worn, called Foley.
5. #350 Schultz Mower, installed new PTO shaft to tractor. DOA 2006 Chevrolet Van, service job.

#### **LAWRENCE SMITH-WEST FOREMAN**

Excavator working at Bridge 729-X. Backfilled north approach with shale & put a load of concrete chunks in NW ditch to keep from washing out. Mower working Corwin area. Graders patrolling, working on washouts & cutting down high intersections. Dozer 628 pushing up & stockpiling sand at Seipel Pit. Drove steel sheeting & added shale to fix washout on south side of culvert on Rd 672-12. Excavator 632 building road that was washed away also. Added shale to rebuild road dike and bed that washed out on Rd 668-12. Reset downed signs on Rd's 708-3 & 729-X. Fixed undermined approach with shale on Rd 664-3. Graveled Rd's 715-D, 719-B, C & D & 668-4 & 5.

#### **BRANDON HEKEL-BRIDGE FOREMAN**

1. Paperwork to office. To Home Lumber to order impact drill. Welded guardrail posts at Bridge 729-X. Drove sheet piling at culvert 672-12.
2. Gathered material for culvert 672-12. Finished driving sheet piling & framed up walls. Cleaned out trucks & shop area. Checked for needed repairs at culvert 688-17.
3. Checked 8-bridges for needed repairs.
4. Disassembled Crane at Bridge 729-X.
5. Repaired damage to propane tank safety cage.

September 22, 2016

Mr. John McClure  
Harper County - Road & Bridge Department  
103 West Steadman  
Anthony, KS 67003

**SUBJECT:** Proposal for Geotechnical Engineering & Construction QA Services  
2016 County Road Stabilization Projects  
Harper County, Kansas  
GSI Proposal P167308 Revision 1

Dear Mr. McClure:

GSI Engineering, LLC (GSI) is pleased to present this proposal to provide the geotechnical engineering and construction quality assurance services for the above-referenced project. This proposal is based upon a preliminary understanding of your requirements as outlined on your e-mailed map of road locations and as developed from our telephone conversation on June 21, 2016.

GSI is committed to providing a high level of service to its clients. If a change in the proposed scope of work is requested, we are prepared to consider appropriate modifications, subject to the standards of care to which we adhere as professionals. Modifications such as changes in scope, methodology, scheduling, and contract terms and conditions beyond that which is described in this proposal may result in additional risks assumed by you and may require adjustments to our fee.

#### **PROJECT DESCRIPTION**

The proposed project encompasses approximately 16 miles of existing county roadways located at near the cities of Waldron (6.5 miles), Harper (4.5 miles), Anthony (3 miles) and Bluff City (2 miles) in Harper County, Kansas. We understand the project will consist of investigating the existing road material and soil subgrade, preparing a chemically stabilized subgrade recommendation using Super Slurry, cement kiln dust, or fly ash amendment and providing construction quality assurance services during construction of the roads. We understand that the stabilized subgrade will subsequently be paved with hot mix asphalt or chip seal.

#### **SCOPE OF SERVICES**

##### ***Geotechnical Investigation Services***

GSI will request a utility clearance through Kansas One-Call. The client will be responsible for locating and marking nonmember utilities or private utilities not located by Kansas One-Call. GSI is not responsible for loss or damage resulting from unmarked utilities.

We will mobilize a truck mounted drill rig, support truck and 2-person drill crew to advance borings at selected intervals along each section of roadway. The borings will be performed on the road



shoulders to limit the disruption of traffic. Traffic control will consist of MUTCD TA-6 for Shoulder Work with Minor Encroachment. A copy of the proposed traffic control plan is attached for reference. We anticipate low traffic volume on the roads and as such, do not anticipate the need for flaggers.

We propose to explore the subsurface conditions along these county roads by drilling a boring at ½ mile intervals to a depth of approximately 2 feet below grade. Logs of the subsurface conditions encountered in the borings will be recorded by our field personnel at the time of subsurface exploration. Bulk samples will be obtained and will be returned to our laboratory for testing and analysis. The borings will be backfilled with soil upon completion of the sampling program.

The samples obtained will be visually classified by a geotechnical engineer in accordance with ASTM D 2487 and laboratory testing will be performed including Atterberg Limits (ASTM D4318) and No. 200 Sieve Wash (ASTM D1140) to determine the consistency of the soils throughout the individual roadway sections. Similar soil conditions will be grouped together and an analysis of the selected stabilization material will be conducted by varying the percentage of chemical amendment and performing Moisture-Density Relationships (ASTM D698) and unconfined compressive strength (ASTM D 1633) testing. The actual type and number of tests will depend on the number of differing soil types that we encounter.

We will present our opinions and recommendations in a written report which will include a map of the boring locations, logs of the explorations and laboratory test results. We will submit an electronic copy (pdf format) and one bound hard copy of the final report.

### ***Construction Quality Assurance Services***

During the soil stabilization process, a GSI materials testing technician will be on site to monitor the soil mixing depth, the incorporation of the chemical stabilization agent, to measure the soil moisture content and perform density testing of the compacted material. The technician will also observe the subsequent micro-cracking process which should occur with 24 to 72 hours after compaction is completed to ensure the material is covered with three passes of the vibratory roller.

### **SCHEDULE**

We can begin the geotechnical exploration within approximately 5 to 7 working days after your authorization to proceed (weather permitting). We anticipate completion of the final report within two weeks from the completion of our field work. We will provide verbal updates as information is developed in order to expedite the project schedule.

### **FEES AND CONDITIONS**

Our services will be performed in accordance with the attached General Conditions. The fee for the geotechnical engineering services described herein is a lump sum of \$7,520.00.

The construction quality assurance services will be provided in accordance with the following unit fee schedule.



**Table 1 – Unit Fee Schedule, Estimated Quantities and Total Estimated Cost**

Description	Est. Qty.	Unit Fee	Extended Cost
Materials Testing Technician (10 hour day)	34	\$550.00/day	\$18,700.00
Materials Testing Technician (5 hour day)	5	\$285.00/day	\$1,425.00
Travel Mileage or Per diem	39	\$130.00/day	\$5,070.00
ASTM D 698 – Standard Proctor	If Req.	\$140.00/each	\$0.00
<b>Total Estimated Cost</b>			<b>\$25,195.00</b>

The total estimated cost for materials testing services is based on stabilizing approximately one lane mile of road per 10 hour day and 5 half days of micro-cracking. Our invoicing will be based on the unit rates presented and the actual services rendered.

Any work required beyond the scope of that proposed above will be undertaken only after receiving your prior authorization and after an adjustment has been made to our fee to cover the additional work.

Please note that our fees are due within 30 days of the presentation of our invoice. If payment within 30 days is not possible, we should be contacted prior to commencing work to develop an acceptable payment schedule.

#### **LIMITATIONS**

During the course of the performance of GSI's services, hazardous materials may be discovered. GSI will assume no responsibility or liability whatsoever for any claim, loss of property value, damage, or injury which results from pre-existing hazardous materials being encountered or present on the project site or from the discovery of such hazardous materials. You will be asked to sign an agreement indemnifying GSI from liability or loss arising out of the services covered by this proposal, including liability or loss in connection with pre-existing hazardous materials.

#### **CLOSURE**

GSI appreciates the opportunity to submit this proposal, and we look forward to working with you on this project. If you are in agreement with the terms of this proposal, please sign and return the enclosed service agreement. A fully executed copy will be returned to you. If you have any questions or need additional information, please contact GSI's Wichita office.

Respectfully submitted,  
GSI Engineering, LLC

David A. Edwards, P.E.  
Senior Vice President

Thomas C. Kettler, Jr., P.E.  
Senior Engineer

Attachments: Geotechnical Service Agreement and General Conditions (3)  
g:\proposal\167\p167308\harper county - 2016 road stabilization program.docx





**GSI ENGINEERING, LLC**  
Geotechnical Services Agreement

**GSI Proposal Number P167308 Revision 1**

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**PARTIES**

This Agreement is made on Thursday, September 22, 2016, between

Harper County - Road & Bridge Department      and  
103 West Steadman  
Anthony, KS 67003

GSI Engineering, LLC  
4503 East 47th Street South  
Wichita, Kansas 67210-1651

hereinafter called "Client"

hereinafter called "Consultant"

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**PROJECT DESCRIPTION**

Client engages Consultant to provide Geotechnical Engineering Services in connection with the 2016 County Road Stabilization Projects project in Harper County, Kansas.

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**SCOPE OF SERVICES**

Consultant agrees to perform Geotechnical Engineering Services in accordance with attached Proposal No. P167308 dated September 22, 2016. Client agrees that all services not expressly included are excluded from Consultant's Scope of Services.

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**COMPENSATION**

Client agrees to compensate Consultant for the referenced services:  
The geotechnical investigation for a lump sum of \$7,520.00 and;  
Construction Quality Assurance services in accordance with the included fee schedule, with a total estimated cost of \$25,195.00.

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**Client and Consultant acknowledge that each has read and agrees to the attached General Conditions, which are incorporated herein and made a part of this Agreement and apply to all services performed by Consultant.**

**Client: Harper County - Road & Bridge Department      Consultant: GSI Engineering, LLC**

Signature: \_\_\_\_\_

Signature: \_\_\_\_\_

Print Name: \_\_\_\_\_

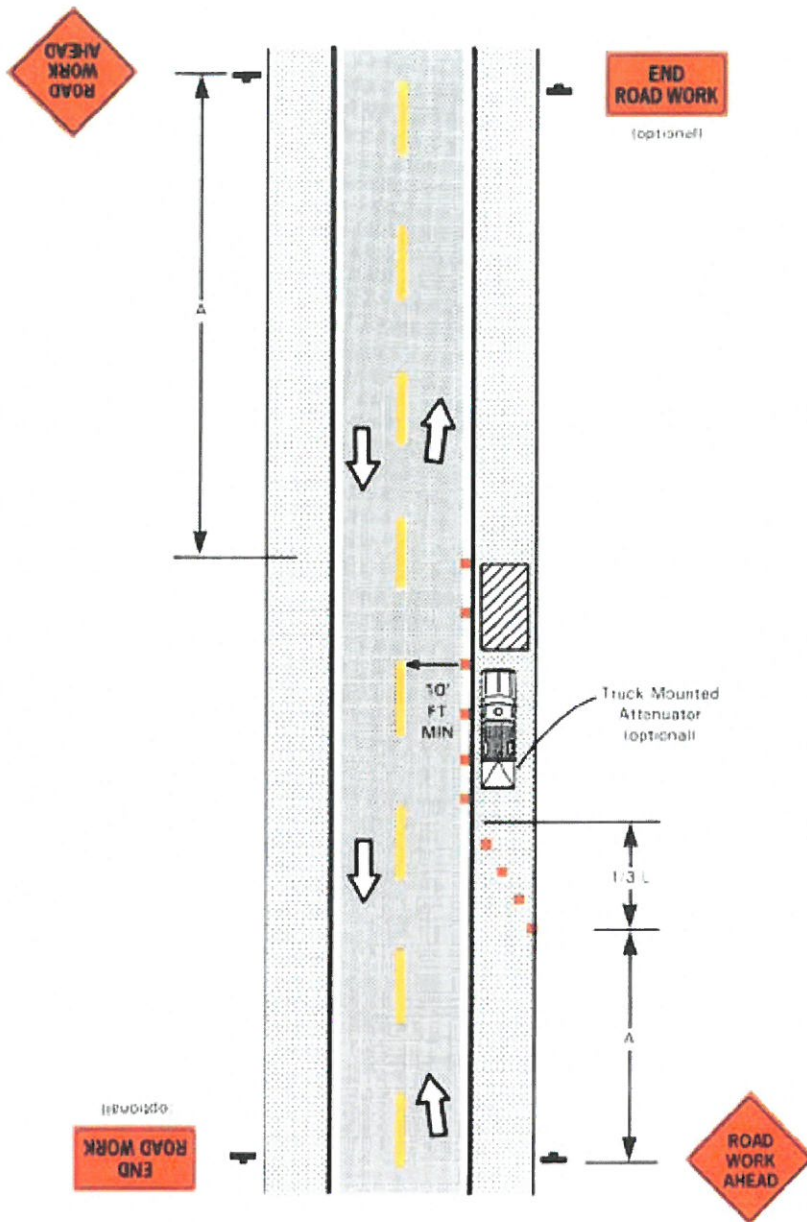
Print Name: Thomas C. Kettler, Jr., P.E.

Title: \_\_\_\_\_

Title: Senior Engineer

Date: \_\_\_\_\_

Date: \_\_\_\_\_







## GENERAL CONDITIONS

### SECTION 1: Independent Contractor

GSI Engineering, LLC (GSI) shall perform its services, drilling work or construction material testing work that requires providing only a technician (CMT Technician Work), as the case may be, as an independent contractor, with all of its employees under its sole discretion and control.

### SECTION 2: Client Responsibilities

Unless otherwise agreed, the Client will furnish GSI with right-of-access to the site to conduct its services or drilling work. As applicable, Client shall provide and deliver all samples for testing or provide instruction to GSI on their storage or shipment to Client; but, in either case, such samples remain the property of the Client. Client further agrees to meet its obligations under Sections 3 through 5 of these general conditions.

### SECTION 3: Site Conditions

The Client is responsible for providing accurate information of all underground structures and utilities located at the site. In performing its services or drilling work, GSI will take all reasonable precautions to avoid damage or injury to underground structures or utilities. The Client also agrees to defend, indemnify and hold GSI harmless from any claims, payments or other liability, including costs and attorney fees, incurred by GSI for damages to underground structures or utilities which are not called to GSI's attention or correctly shown on the plans furnished to GSI.

To the extent enforceable, the Client must advise GSI of any known or suspected hazardous substances which may impact the services or drilling work that will be provided by GSI. For purposes of this section and Section 13, "hazardous substances" means any toxic substance, chemical, radioactivity, pollutant or any material that is identified now or in the future as hazardous under any federal, state or local law or regulation or is subject to special handling, disposal or clean-up. If during the course of providing its services or drilling work, GSI observes or suspects the existence of unanticipated hazardous substances, GSI may at its option terminate any further services or work on the project and notify Client of this condition. Services or work will be resumed only after a renegotiation of GSI's scope of services or work and its fees. If such renegotiation does not lead to an amendment to this Agreement that is satisfactory to GSI, GSI may at its option terminate this contract. Client further agrees that GSI is not, and has no responsibility as, a handler, generator, operator, treater, storer, transporter or disposer of any known or unknown hazardous substances found at the site. Therefore, Client shall undertake or arrange for the handling, removal, treatment, storage, transportation and disposal of all hazardous substances found or identified at the site.

### SECTION 4: Schedule and Change Orders

The schedule for GSI's services, drilling work or CMT Technician Work is set forth in GSI's proposal. If Client makes a request for additional services or work, alters the planned deliverables or suspends GSI's services or work for any period of time or there are delays that occur due to causes not under GSI's control, the parties agree to equitably adjust the time for completion and the compensation for such services or work, including any necessary demobilization and subsequent remobilization, via a written change order. Unless otherwise agreed by the parties, such change orders must be in place before any services or work can recommence.

### SECTION 5: Reports and Invoices

GSI will furnish 3 copies of any report to the Client. Additional copies will be furnished at the expense of the Client. GSI will submit invoices to the Client monthly and a final bill upon completion of its services or work, all on a time and material or rate basis. Payment is due upon presentation of GSI's invoice and is past due 30 days from the invoice date. Client agrees to pay a finance charge of 1 1/2% per month, but not exceeding the maximum rate allowed by law on past due accounts.

### SECTION 6: Ownership of Documents

All reports, boring logs, field data, field notes, laboratory test data, calculations, estimates, and other documents prepared by GSI are instruments of service. Therefore, they shall remain the property of GSI unless there are other contractual arrangements made with Client.

### SECTION 7: Confidentiality

GSI shall hold in confidence all business or technical information obtained from the Client or its affiliates provided that they are identified in writing by the Client as "confidential" at the time they are given to GSI or generated in the performance of its services or work.

GSI shall not disclose such information without the Client's consent except to the extent required for: 1) Performance of services or work under this Agreement; 2) Compliance with professional standards of conduct for preservation of public safety, health, and welfare; 3) Compliance with any court order, other governmental directive, or other compulsory process such as a subpoena; and/or 4) Protection of GSI against claims or liabilities arising from performance of services or work under this agreement. These obligations shall not apply to information in the public domain or lawfully acquired on a non-confidential basis from others.

### SECTION 8: Testing and Observation

Client acknowledges that testing and observation are discrete procedures, are not continuous or exhaustive, and are being conducted to reduce the Client's risks; but, they cannot eliminate them. Therefore, these procedures indicate the conditions only at the locations, depths and times they were performed. But, in performing any of its services, drilling work or CMT Technician Work, GSI will not be responsible for:

- the quality and completeness of the Client or Client's contractor's work, as the case may be,
- Client's or Client's contractor's work adhering to the project documents,
- defects discovered in the Client's or Client's contractor's work,
- supervising or directing the work performed by Client or Client's contractor, and
- Client's or Client's contractor's means and methods.

Likewise, Client recognizes that subsurface conditions may vary from those encountered at the location where borings, surveys, or explorations are made by GSI and that the data, interpretations, and recommendations of GSI are based solely upon the data available to GSI. GSI will be responsible for those data, interpretations, and recommendations, but shall not be responsible for the interpretation by others of the information developed.

### SECTION 9: Warranties

GSI warrants that its professional consulting services under this Agreement will be conducted in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions. For its drilling work or CMT Technician Work, GSI warrants they will be performed in a workmanlike manner. **No other warranties, express or implied, are made or intended by the proposal for these consulting services or work or by furnishing oral or written reports of the findings made.**

### SECTION 10: Limitation of Liability

GSI's total aggregate liability to Client and all third parties, including all construction contractors and subcontractors at the site, arising out of its performance or breach of this Agreement shall not exceed \$50,000 or GSI's total fee for the services or work performed under this Agreement, whichever is greater. Notwithstanding any other provision of this Agreement to the contrary, GSI shall have no liability to the Client for contingent, consequential or other indirect damages including, without





## GENERAL CONDITIONS

limitation, damages for loss of use, revenue or profit; operating costs and facility downtime; or other similar business interruption losses, however they may be caused. The limitations and exclusions of liability set forth in this Section shall apply regardless of the fault, breach of contract, tort (including the concurrent or sole and exclusive negligence), strict liability or otherwise of GSI, its employees, consultants or subcontractors.

### SECTION 11: Insurance

GSI represents that it and its staff are protected by worker's compensation insurance. GSI has coverage under public liability and property insurance policies which GSI deems to be adequate. It is the policy of GSI to require certificates of insurance from all consultants or subcontractors employed by GSI. Certificates for all such policies of insurance will be provided to Client upon request in writing. Client also agrees to protect its employees by worker's compensation insurance, including waiving its rights against GSI for any claims for injuries to its employees.

### SECTION 12: Termination and Suspension

This Agreement may be terminated by either party upon 7 days written notice in the event of substantial failure by the other party to perform according to the terms of this Agreement. Such termination shall not be effective if that substantial failure has been remedied before expiration of the period specified in the written notice. Client may elect to suspend GSI's services or work upon written notice. In the event of termination or suspension, GSI shall be paid for services or work performed to the effective date of termination or suspension plus reasonable termination or suspension expenses. These expenses shall include all direct costs of GSI required to complete analyses and records necessary to complete its files and may also include a report of the services or work performed to the effective date of termination or suspension.

### SECTION 13: Indemnity

Subject to the other terms of this Agreement, GSI agrees to indemnify and hold Client harmless from third party property damages and bodily injury to the extent they are proximately caused by GSI's negligence in performing its services or work.

Since GSI's compensation under this Agreement is not commensurate with the potential risk of injury or loss that may be caused by exposures to hazardous substances or other dangerous substances or conditions, the Client waives any claim against GSI and agrees, to the extent enforceable, to defend, indemnify and save GSI, its employees and consultants or subcontractors harmless from any claim, liability, defense costs, attorney fees or expert witness fees for injuries or losses sustained by any party from such exposures allegedly arising out of GSI's performance of its services or work.

### SECTION 14: Dispute Resolution Procedures

If a dispute arises out of this Agreement that does not involve termination or suspension, the parties will endeavor to settle it by direct discussions between their authorized representatives. If they are not able to resolve the dispute, the parties will endeavor to settle the dispute by mediation under the then current Construction Industry Mediation Rules of the American Arbitration Association. If the dispute cannot be settled by mediation within 60 days of its request, either party may take whatever action allowed by law. Unless otherwise agreed in writing by the parties, GSI will continue to perform its services or work and Client will continue to make payment per the terms of this Agreement during these dispute proceedings.

### SECTION 15: Safety & Restoration

GSI is solely responsible for the health and safety of its employees, and disclaims any responsibility or authority over the safety of any third parties engaged in the performance of any work for the Client at the site. Therefore, GSI will provide its employees all personal protective

clothing and equipment that is required to perform their services or work safely and according to all applicable local, state and federal laws and regulations.

While GSI will take all reasonable precautions to minimize any property damage at the site, Client understands that in the normal course of GSI performing its services or work some property damage may occur. Therefore, Client waives any such claims against GSI.

### SECTION 16: Miscellaneous Provisions

Neither party may assign its interest in this Agreement without the written consent of the other party. This Agreement is for the exclusive benefit of Client and GSI and not for the benefit of any third party except to the extent specifically provided in this Agreement.

These general conditions shall take precedence over any inconsistent or contradictory provisions contained in any proposal, contract, purchase order, requisition, notice to proceed, or like document regarding GSI's services or work. This Agreement represents the entire agreement between the parties and supersedes all prior written or oral negotiations. If any provision of this Agreement is found to be unenforceable, that provision will be deemed stricken and reformed to comply with the law.

If it is necessary for GSI to retain counsel to enforce any provision of these general conditions, Client agrees to pay all attorney's fees and cost incurred by GSI. Client consents to the jurisdiction, law and venue of the location of the site where the services or work are performed or GSI's offices, if the services or work is exclusively performed there.

The parties' rights and remedies regarding this Agreement, whether in contract, tort or otherwise, shall be exclusively those expressly set forth in this Agreement. The waiver of any term or breach of this Agreement by either party will not operate as a subsequent waiver of the same term or breach.

GSI GC – 3.2010





## Local Off-System Bridge Program



Federal Fiscal Year

Submittal Date

### 1. General Applicant Information

a. Name of Local Public Agency (LPA)

b. Name and title of primary contact person

*Should be an elected official or employee of the LPA*

Address

Phone Number

email

### 2. Project Location and Description - *Attach additional sheets as necessary*

Project Location

Project Length (miles)

*Project Scope (description of work:  
replacement, rehabilitation, etc)*

NBI (15 digit) Structure Number

LPA Bridge ID

### 3. Estimated Cost of the Project - (Current Year)

a. Construction

\$510,000.00

b. Construction Engineering

\$90,000.00

c. Inflation Amount  $[(a+b) \times 0.092]$

\$55,200.00

d. Total Estimated Cost  $[(a+b+c)]$

\$655,200.00

e. Federal Fund Amount  $[(a+b+c) \times 0.80]$  (If  $> \$1,000,000.00$  then use \$1,000,000.00)

\$524,160.00

f. Local Match  $[(d-e)]$

\$131,040.00

HARPER CO. COST

### 5. Coordination Information

Please include a brief summary of the stage of development for this project.

If a project number was previously assigned please provide it here.

Harper County is ready to move forward with field check plans, final design, right-of-way acquisition, and utility moves required for this project if accepted for funding by KDOT.

### Attachment Checklist

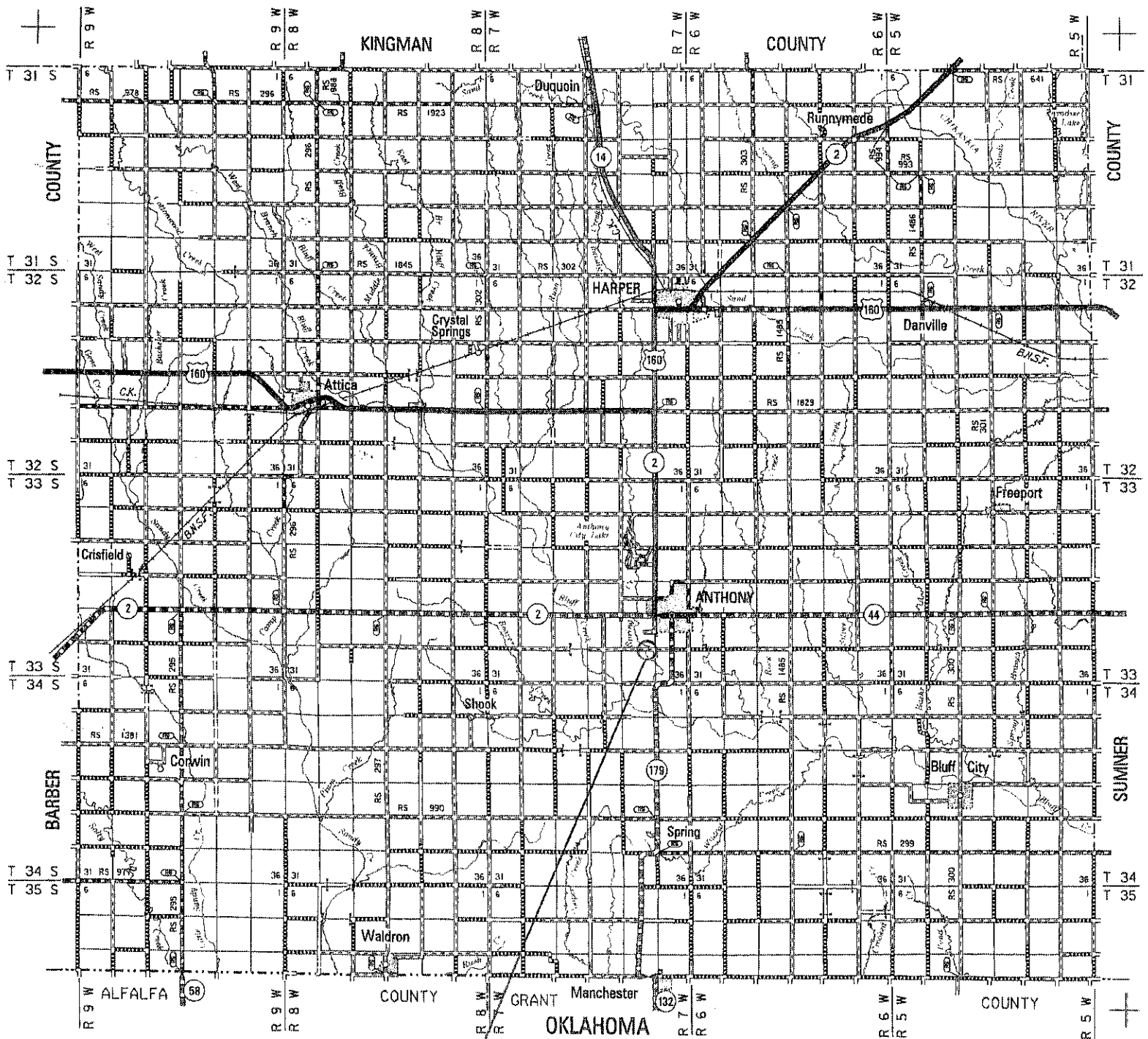
a. Project Map

Submit Application by mail to:

Kansas Department of Transportation  
Bureau of Local Projects  
Eisenhower State Office Building  
700 SW Harrison, 10th Floor  
Topeka KS 66603-3745

Complete applications may also be emailed to [lpeplans@ksdot.org](mailto:lpeplans@ksdot.org). To confirm receipt, if you do not receive an email response, please follow up with a call to the Bureau of Local Projects at 785.296.3861.

Submit by Email



# LEGEND

## ROADS AND ROADWAY FEATURES

- Primitive Road (Type A1)
- Unimproved Road (Type B)
- Graded and Drained Road (Type C)
- Soil Surface Road (Type D)
- Gravel or Stone Road — Graded and Drained (Type E-2)
- Projected Road
- Bituminous Road — Low Type (Type F, G-1, H-1)
- Paved Road (Type G-2, H-2, I, J, K, L)
- Graded Highway
- Highway With Full Control of Access and Interchanges

## ROAD SYSTEM DESIGNATION

- Rural Secondary System
- Interstate Numbered Highway
- U. S. Numbered Highway
- State Highway System or State Numbered Highway
- End of Designated System or Marked Route
- Kansas Turnpike Authority

# GENERAL HIGHWAY MAP HARPER COUNTY KANSAS

RECEIVED BY THE  
KANSAS DEPARTMENT OF TRANSPORTATION  
BUREAU OF TRANSPORTATION PLANNING  
3100 DOUGLASS AVENUE, 100  
U. S. DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION

SCALE IN MILES  
0 1 2 3 4 5 6 7 8 9 10

SCALE IN KILOMETERS  
0 1 2 3 4 5 6 7 8 9 10

1999

COMPUTER  
GENERATED

HS SYSTEM REVISED TO APRIL 20, 2000

# Structure Inventory & Appraisal (English)

(8) STRUCTURE NO 000390741706940 (1) STATE Kansas (4) CITY Rural (3) COUNTY Harper  
LPA Bridge ID Q.7-18.0 LPA Bridge Name (5A) ROUTE ON/UNDER Route On Structure

IDENTIFICATION			
(5B) ROUTE TYPE		County Hwy	
(5C) SERVICE TYPE		Mainline	
(5D) ROUTE NUMBER	00000	(5E) SUFFIX	N/A (NBI)
(6A) FEATURE INTERSECTED		SPRING CREEK	
(9) LOCATION		0.8W 1.0S OF ANTHONY	
(16) LATITUDE		37 ° 08 ' 15.23 "	
(17) LONGITUDE		98 ° 02 ' 39.39 "	
(2) HIGHWAY AGENCY DISTRICT		District 05 - Hutchinson	
(98A) BORDER BRIDGE STATE		Not Applicable (P)	
(98B) BORDER BRIDGE RESPONSIBILITY		%	
(99) BORDER BRIDGE STRUCTURE NO.		-	
(7) (ROUTE NAME) FACILITY CARRIED		LOCAL Q.7-18.0	

FUNCTIONAL DESCRIPTION			
(26) FUNCTIONAL CLASSIFICATION		Rural Local	
(104) NHS DESIGNATION		Not on NHS	
(100) STRAHNET DESIGNATION		Not a STRAHNET hwy	
(110) NATIONAL TRUCK NET		Not part of natl netwo	
(12) BASE HIGHWAY NET		Not on Base Network	
(13A) LRS INVENTORY ROUTE	(13B) LRS SUBRTE #		
(11) LRS MILE POINT		0.000 MI	
(105) FEDERAL LANDS HIGHWAY		N/A (NBI)	
(20) TOLL		Rdwy Agrmt	
(21) MAINTENANCE RESPONSIBILITY		County Hwy Agency	
(22) OWNER		County Hwy Agency	
(37) HISTORICAL SIGNIFICANCE		Possibly eligible for	
(101) PARALLEL STRUCTURE		No    bridge exists	
(103) TEMPORARY STRUCTURE		Not Applicable	

AGE AND SERVICE			
(29) AVERAGE DAILY TRAFFIC		10	
(109) AVERAGE DAILY TRUCK TRAFFIC		-1 %	
(30) YEAR OF ADT		2013	
(27) YEAR BUILT		1945	
(106) YEAR REHABILITATED			
(102) ONE WAY OR TWO WAY TRAFFIC		2-way traffic	
(42A) SERVICE ON THE BRIDGE		Highway	
(42B) SERVICE UNDER THE BRIDGE		Waterway	
(28A) LANES ON ROUTE		2	
(28B) LANES UNDER ROUTE		0	
(19) BYPASS DETOUR LENGTH		2.000 MI	

LOAD RATING			
(66) INVENTORY LOAD RATING		10 ton, HS 5.00	
(64) MAXIMUM LOAD RATING		15 ton, HS 7.00	
(31) DESIGN LOAD		0 Unknown	
(65) INVENTORY LOAD RATING METHOD		AS Allowable Stress	
(63) OPERATING (MAX) LOAD RATING METHOD		AS Allowable Stress	
(70) POSTING REQUIREMENTS		30.0-39.9%below	
(41) POSTING STATUS		Posted for load	

SCHEDULE			
(90) ROUTINE INSPECTION DATE		01/11/2016	
(91) ROUTINE INSPECTION FREQUENCY		12 MO	
(92) CRITICAL FEATURE INSPECTION:		(93) INSP DATE	
A) FRACTURE CRITICAL	N	MO	A)
B) UNDERWATER INSP	N	MO	B)
C) SPECIAL INSP	N	MO	C)

PROPOSED IMPROVEMENTS			
(75A) TYPE OF WORK		Repl-Load Capacity	
(75B) WORK BY		Contract	
(76) IMPROVEMENT LENGTH		160.10 FT	
(94) BRIDGE COST		\$430000	
(95) ROADWAY COST		\$110000	
(96) TOTAL COST		\$540000	
(97) COST ESTIMATE YEAR		2016	
(114) FUTURE ADT		12	
(115) FUTURE ADT YEAR		2037	

GEOMETRIC DATA			
(112) NBIS BRIDGE DEFINITION		Long Enough	
(49) STRUCTURE LENGTH		120.1 FT	
(48) MAXIMUM SPAN LENGTH		17.0 FT	
(32) ROUTE WIDTH		20.0 FT	
(51) BRIDGE ROADWAY WIDTH, CURB TO CURB		17.1 FT	
(52) DECK WIDTH OUT TO OUT		18.0 FT	
(50A) LEFT CURB OR SIDEWALK WIDTH		0.0 FT	
(50B) RIGHT CURB OR SIDEWALK WIDTH		0.0 FT	
(34) SKEW		0.0 °	
(47) ROUTE HORIZONTAL CLEARANCE		16.7 FT	
(10) MIN VERT CLEARANCE OVER ROUTE		99.99 FT	
(53) MIN VERT CLEARANCE OVER BRIDGE		99.99 FT	
(33) MEDIAN		No Median	
(35) STRUCTURE FLARED		No flare	
(54A) MIN VERT UNDERCLEARANCE REF		Feature not hwy or RR	
(54B) MIN VERT UNDERCLEARANCE		0.00 FT	
(55A) MIN LATERAL UNDERCLEAR REF RT		Feature not hwy or RR	
(55B) MIN LATERAL UNDERCLEAR RT		99.9 FT	
(56) MIN LATERAL UNDERCLEARANCE LEFT		0.0 FT	

STRUCTURE AND MATERIALS			
(45) NUMBER OF MAIN SPANS		7	
(43B) MAIN SPAN DESIGN TYPE		Stringer/Girder	
(43A) MAIN SPAN MATERIAL TYPE		Wood or Timber	
DOT MAIN SPAN MATERIAL TYPE:		7 - 02 : TBMS	
		Timber Beam, Simple	
(107) DECK TYPE		Wood or Timber	
(108A) DECK SURFACE		Wood or Timber	
(108B) MEMBRANE		None	
(108C) DECK PROTECTION		None	
(46) NUMBER OF APPROACH SPANS		0	
(44B) APPROACH SPAN DESIGN TYPE		Not Applicable	
(44A) APPROACH SPAN MATERIAL TYPE		Not Applicable	
DOT APPROACH SPAN MATERIAL TYPE:			

CONDITION			
(58) DECK CONDITION RATING		5	
(59) SUPERSTRUCTURE CONDITION		6	
(60) SUBSTRUCTURE CONDITION		4	
(62) CULVERT CONDITION		N	
(61) STREAM STABILITY / CHANNEL		6	

APPRAISAL			
DEFICIENCY STATUS		Structurally Deficient	
(72) BRIDGE ROUTE ALIGNMENT		8	
(71) WATERWAY ADEQUACY		6	
(113) SCOUR VULNERABILITY		-	
(67) STRUCTURAL EVALUATION		2	
(68) DECK WIDTH APPRAISAL		3	
(69) HORIZ. UNDERCLEARANCE APPRAISAL		N	
SUFFICIENCY RATING		23.50	
(36A) BRIDGE RAILS		0	
(36B) RAIL TRANSITIONS		0	
(36C) APPROACH GUARDRAILS		0	
(36D) APPROACH GUARDRAIL ENDS		0	

NAVIGATION DATA			
(38) NAVIGABLE WATERWAY		Permit Not Required	
(39) NAVIGATION VERTICAL CLEARANCE		FT	
(40) NAVIGATION HORIZONTAL CLEARANCE		FT	
(111) SUBSTRUCTURE NAV PROTECTION		Unknown (NBI)	
(116) MIN NAV VERT CLEAR VERT LIFT BRIDGE		FT	



**PROJECT PROGRAMMING REQUEST**

<input checked="" type="checkbox"/> New Project		<input type="checkbox"/> Amend Existing Project		Date:	9/15/2016
Program Year: 2018		Funding Program:		Off-System Bridge	
KDOT District		MPO		MPO TIP #	
5					
County	City	Route / Corridor	Functional Classification		
Harper			7 = Local		
Project Sponsor / Lead Agency					
Harper County					
Project Mgr / Contact		Phone		E-mail Address	
John McClure		620-842-5240		jmcclure@harpercountyks.gov	
Project Title					
Harper County Bridge Replacement					
Project Length: 0.150 miles		Desired Letting Date:		July 2018	
Location, Project Limits, Description, Scope of Work					
Replace Bridge # 000390741706940 at 1.0 miles South and 0.8 miles West of Anthony					
Purpose and Need					
Replace existing 17' Timber Beam bridge that is in poor condition. 7-18' spans Overall length 126'					
Project Benefits					
Remove deficient bridge from inventory and provide a new bridge.					
RR within 1/2 mile?	RR Company Name	No. of Tracks	Existing Crossing Protection		
No	NO	No	No		

In accordance with the Bureau of Local Projects (BLP) Memo 99-11, dated December 16, 1999, we are required, under the Comprehensive Transportation Program (CTP), to collect and record total costs of all work phases of projects. This includes local agency federal-aid and state-aid projects that include any non-participating, pre-construction local agency costs for preliminary engineering (plan design), rights of way and utility adjustments. Please show your estimate of the cost for all work phases below:

Project Cost Estimate			
	Participating	Non-Participating	Total
PE (Design)	\$ -	\$ -	\$ -
Utilities	\$ -	\$ -	\$ -
ROW	\$ -	\$ -	\$ -
CE (Inspection)	\$ 90,000.00	\$ -	\$ 90,000.00
Construction Total	\$ 510,000.00	\$ -	\$ 510,000.00
	\$ 510,000.00	\$ -	\$ 510,000.00
	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -

**PROJECT PROGRAMMING REQUEST**

	\$	-	\$	-	\$	-
<b>Project Totals</b>	\$	<b>600,000.00</b>	\$	-	\$	<b>600,000.00</b>

BE IT RESOLVED: That sufficient funds from Harper County

are now, or will be available and are hereby pledged to the Secretary in the amount and at the time required for the supplementing of federal funds available for the completion of this project. Prior to Federal Authorization, any project expenditures made by the LPA are ineligible for federal funding and remain the responsibility of the LPA. Upon cancellation of the project by the LPA, the LPA shall reimburse the Secretary within thirty (30) days after receipt of statement of cost incurred by the Secretary prior to cancellation.

Please sign below in accordance with your local policy.

Recommended for Approval:

Appropriate Local Officials

\_\_\_\_\_  
Title

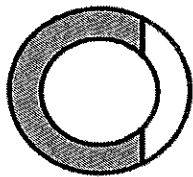
\_\_\_\_\_  
Title

ATTEST:

\_\_\_\_\_  
Title

\_\_\_\_\_  
Title

\_\_\_\_\_  
Title



# Circle C

Paving and Construction LLC

Contact: Chad Alexander  
Phone: 316-644-1554

Proposal Date:  
9/8/2016

Harper County  
201 N Jennings  
Anthony, KS  
Contact: John McClure  
Phone: 620-842-2471  
NW 100 Ave Repair from disc

## Estimate is submitted to the following specifications

<u>Description of Work</u>	<u>Qty</u>	<u>Rate</u>	<u>Total</u>
ONYX Surface seal estimated by the square yard: County to provide traffic control Sweep loose debris from roadway Apply .35 of a gallon per square yard in three passes	3467	\$ 2.85	\$ 9,880.95

Subtotal	\$ 9,880.95
Tax 7.15%	\$ -
Total	\$ 9,880.95

All estimate totals include labor and material. All pricing is valid for 30 days after estimate date. All payments on invoices are due 30 days upon receipt of invoice.

### Acceptance of Proposal

The above prices, specifications and conditions are satisfactory and are hereby accepted. You are authorized to do the work as specified. Payment will be made as outlined above.

Signature: \_\_\_\_\_ Date of Acceptance: \_\_\_\_\_



September 23, 2016

Harper County  
103 W. Steadman St.  
Anthony, KS 67003

Attn: Mr. John McClure  
P: (620) 842-2471  
E: [jmccclure@harpercountyks.gov](mailto:jmccclure@harpercountyks.gov)

Cc: Ms. Melinda McCurley  
E: [mmccurley@harpercountyks.gov](mailto:mmccurley@harpercountyks.gov)

Re: Proposal for Exploratory Drilling and Geotechnical Engineering Services  
Proposed Harper Co. Road Improvements – 16½ Miles  
Harper County, Kansas  
Terracon Proposal No. P01165150 – Revision A

Dear Mr. McClure:

Terracon appreciates the opportunity to submit this proposal for subsurface exploration and geotechnical engineering services for the proposed county road improvement projects.

Terracon's experience with similar projects in the general vicinity provides added value to our services. Terracon has provided geotechnical studies and construction observation and testing services for many successful projects for various roadway improvements. With our experience and expertise with the local soil conditions, Terracon has developed cost effective design recommendations for pavements that resulted in the required performance, often at significant construction cost savings for the Owner. We are looking forward to providing you our expertise on these projects.

## A. PROJECT INFORMATION

The proposed project will involve the stabilization of a total of 16½ miles of gravel- and asphalt-surfaced roadways in Harper County, Kansas. The project will be divided amongst four sites in the County. The project locations are as follows:

- Along SE 90 Ave, from SE 70 Rd to SE 50 Rd (2 miles)
- Along NE 40 Ave, from K-44 to NE 30 Rd (3 miles)
- Along NE 30 Ave, from K-2 to Harper-Kingman County Line (5 miles)
- Along NW 110 Ave, from K-2 to Attica Ave (6½ miles)



Terracon Consultants, Inc. 1815 South Eisenhower Wichita, Kansas 67209  
P [316] 262-0171 F [316] 262-6997 [Terracon.com](http://Terracon.com)

Environmental



Facilities



Geotechnical



Materials



We understand that the 22-foot wide roadway subgrade will be stabilized with a cementitious agent. Following subgrade stabilization, the roadway surface will either be paved with a 2-inch thick layer of asphaltic concrete or a double layer of chip seal. Terracon will provide recommendations for the application rate of the cementitious agent, based on traffic data to be provided by Harper County.

## **B. SCOPE OF SERVICES**

### **B.1 Exploratory Drilling Activities**

The purpose of this subsurface exploration is to obtain data regarding existing gravel and asphaltic surfacing thicknesses and subgrade conditions, and to develop recommendations for subgrade preparation and stabilization. We plan to divide the project into fifteen (15) sections (approximately one mile each), and will provide individualized recommendations for each section.

We propose drilling a total of 60 borings (about 4 borings per mile) within the proposed roadway alignments to a depth of about 3 feet below existing ground surface (BGS). We plan to use our truck-mounted drill rig to drill the borings, and will measure the pavement/gravel thicknesses (where present) at the boring locations. We plan to obtain up to fifteen (15) composite samples of auger cuttings (about one sample per project mile) from depths of about 1 to 3 feet below the existing road surface for laboratory testing. In addition, we plan to collect up to fifteen (15) composite bulk samples of the material within about 12 inches BGS for subgrade stabilization testing.

We will backfill our borings with auger cuttings and sand after drilling, prior to leaving the project site. We will apply a temporary patch of quick-set concrete where we drill through existing pavement. Our scope of services does not include any responsibility for future maintenance.

For the work scope of this proposal, we understand that Harper County will provide the appropriate traffic control during our drilling activities (anticipated to be up to two days during daylight hours only). Should delays result in standby or our field work to last more than one day, the additional time will be billed at a rate of \$200 per hour. If you request, Terracon could provide the appropriate traffic control (signage and flagman) during our drilling activities for additional fees (about \$2,500 to \$3,000 per day). This proposal is based on the assumption that one traffic lane will be closed temporarily within a couple hundred feet of our drill rig during our drilling activities.

Terracon will provide an approximate layout of the borings. Distances from available reference features will be estimated using a measuring wheel, and angles will be estimated from existing

features. The locations of the borings should be considered accurate only to the degree implied by these methods.

Samples below the existing subgrade will be obtained at periodic depth intervals using thin-walled tube samplers, split-spoon samplers, or from auger cuttings. The soil samples obtained would be sealed in the field and returned to our laboratory for classification and testing.

## **B.2 Utilities**

As part of our work scope, Terracon will contact *Kansas One-Call*, an underground public utility locate service. These must be notified 72-hours prior to our drilling activities. It is the client's responsibility to:

- Authorize Terracon's services sufficiently in advance to allow for marking of utilities.
- Provide accurate information to Terracon regarding the site/work location, to ensure that the correct areas are marked or cleared. It is the client's responsibility to provide Terracon an accurately scaled drawing that clearly shows the subject street reconstruction alignment, the direction of true north, and a scale bar intersection at least three working days prior to the client's requested start date for exploratory drilling operations. Alternately, this information could be provided in DWG format (AutoCAD) and e-mailed to [ejmarko@terracon.com](mailto:ejmarko@terracon.com).

## **B.3 Laboratory Testing**

Laboratory testing will include unconfined compression tests (or approximations using a hand penetrometer) and water content and density determinations performed on representative portions of thin-walled tube samples. Where applicable, we will perform water content and/or hand penetrometer tests on split-barrel samples. Sieve analyses tests (up to 10 total) and Atterberg limits tests (up to 30 total) will be conducted on selected samples.

We plan to perform a total of up to 15 standard Proctor tests and up to 15 California Bearing Ratio (CBR) tests on representative bulk samples of the proposed subgrade materials (from depths of 0 to 12 inches and 1 to 3 feet) along the project alignments. We will also perform up to 5 CBR tests on subgrade material mixed with cementitious product. We will perform up to 150 unconfined compression tests on remolded soil samples mixed with cementitious product.

## **B.4 Report Preparation**

After completing the field exploration and laboratory testing phases, a written report will be prepared by a professional engineer licensed in the State of Kansas. The report will:

## Proposal for Geotechnical Engineering Services

Proposed Harper Co. Road Improvements – 16½ Miles ■ Harper County, Kansas

September 23, 2016 ■ Terracon Proposal No. P01165150 – Revision A



- Describe the subsurface soil/rock and water level conditions encountered and present boring logs with soil/rock stratification based on visual soil classification and a boring location diagram
- Present the results of the laboratory tests performed
- Provide geotechnical recommendations regarding the recommended application rate of cementitious product for each project section

## C. ADDITIONAL SERVICES

If authorized, for additional fees, Terracon could:

- *Provide construction observation and testing services* for these projects (under a separate workscope) to ensure the quality of the work, to protect the Client's investment, and to avoid or reduce construction delays. It is not economically practical to perform enough exploratory borings to identify all subsurface conditions at the site. Some conditions affecting the design may not become known until construction is in progress; therefore we recommend that Terracon be retained to monitor geotechnical aspects of the proposed construction, to verify that these projects are constructed consistent with our geotechnical recommendations and the project design/specifications, and to evaluate changed subsurface conditions if encountered.

## D. COMPENSATION

Terracon will provide the geotechnical services defined above and invoice for them in accordance with our standard fee schedule. A partial fee schedule pertaining to these anticipated services is enclosed. We estimate that the total fee for our services will be within the range of \$33,000 to \$35,000. This fee is based on completing the drilling activities in one day and on performing only the scope of services outlined in Section B (excluding traffic control during our field activities). Unless you instruct otherwise, we will submit our invoice to the address shown at the beginning of this proposal.

The estimated fee for this project assumes a single mobilization to the site and assumes that the boring locations are accessible to our two-wheel drive, truck-mounted equipment. In the event the work locations are not accessible, costs incurred for tow trucks and/or remobilizations will be billed to the client. Our fee for additional remobilizations to the site would be invoiced in accordance with our standard fee schedule. If desired, Terracon could utilize all-terrain vehicles to access difficult work sites for an additional fee.

**Proposal for Geotechnical Engineering Services**

Proposed Harper Co. Road Improvements – 16½ Miles ■ Harper County, Kansas  
September 23, 2016 ■ Terracon Proposal No. P01165150 – Revision A

**Terracon**

**E. CONDITIONS**

Items to be provided by the client include the right-of-entry to conduct the exploration and an awareness and/or location of any subsurface utilities existing in the area. Any other restrictions or special requirements regarding the site or exploration should be made known to us prior to commencing fieldwork.

Terracon will take reasonable efforts to reduce damage to the roadway, such as rutting of the ground surface. However, it should also be understood that in the normal course of our work some such damage will likely occur. We have not budgeted to restore the site beyond backfilling our boreholes and distributing excess cuttings. Terracon will not be responsible for any pavement/grass damage that occurs due to our rig accessing the boring locations in our normal course of work.

**F. AUTHORIZATION**

Attached is our Master Services Agreement Task Order (Task Order) for the referenced project. This Task Order is issued in accordance with our Master Services Agreement with you dated November 10, 2014. This proposal may be accepted by signing and returning one original copy of the Task Order. You may email/fax a signed copy back to us to expedite the work. Please be aware that we will be unable to initiate work until a signed Task Order is received. This proposal is valid only if authorized within ninety (90) days from the stated proposal date.

We appreciate the opportunity to submit this proposal. If you have any questions, please let us know.

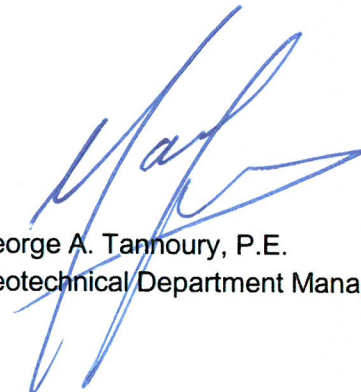
Sincerely,

**Terracon Consultants, Inc.**



Eric J. Marko, P.E.  
Geotechnical Project Manager

Enclosures



George A. Tannoury, P.E.  
Geotechnical Department Manager





## 2016 FEE SCHEDULE GEOTECHNICAL SERVICES

### **I. DRILLING**

Supervision of Exploratory Borings and/or Engineering Reconnaissance.....	\$ 100.00/Hour
Mobilization/Moving of Equipment and Personnel (each way) for Auger Drilling On and Off-Site.....	\$ 4.00/Mile
Support Vehicle.....	\$ 0.74/Mile
Per Diem/Man .....	\$ 160.00/Day
Load/Unload Rig Usage.....	\$ 605.00/Day
Field Engineer/Geologist With Drill Rig.....	\$ 85.00/Hour
Location and Elevation of Borings (Two-Man Crew) .....	\$ 200.00/Hour
Auger Drilling, Depth-Feet (Soil Sampling Using Split-Barrel or Shelby Tube Samplers at 5-Foot Intervals in Soil)	
0 – 20 .....	\$ 13.00/Foot
20 – 40 .....	\$ 14.00/Foot
40 – 60 .....	\$ 16.50/Foot
60 – 80 .....	\$ 20.00/Foot
Additional Fee for Use of Hollow-Stem Auger/Wash Boring.....	\$ 4.00/Foot
Additional Fee for Drilling Weathered Shale/Limestone.....	\$ 23.00/Foot
Additional Fee for ATV Mounted Drill Rig.....	\$ 200.00/Day
Hand Augering (Two-Man Crew, without drill rig).....	\$ 125.00/Hour
Backfilling of Borehole with Bentonite Chips .....	\$ 3.50/Foot
Cost of Special Equipment for Moving Drilling Equipment (Tow Fee) or Outside Services .....	Cost + 20%
Drill Rig + Crew Setup Time Above 1/4 Hr, Standby, Stuck .....	\$ 200.00/Hour
Rock Coring (NX Barrell).....	\$40.00/ft+\$100 setup

### **II. TESTING**

Unconfined Compression Test (Soil).....	\$ 55.00/Test
Calibrated Penetrometer Test.....	\$ 3.50/Test
Density Determination.....	\$ 10.00/Test
Water Content Test.....	\$ 9.00/Test
Sample Classification.....	\$ 5.00/Sample
Atterberg Limits or Sieve Analyses (including -#200 Sieve) .....	\$ 60.00/Test
Sieve Analyses (washed over -#200 Sieve).....	\$ 77.00/Test
Sieve Analyses (unwashed).....	\$ 62.00/Test
Swell Test (3 Pressure).....	\$ 225.00/Test
Swell Test (1 Pressure).....	\$ 120.00/Test
One-Dimensional Consolidation Test (16 tsf)* .....	\$ 295.00/Test
Permeability Test (Includes Sample Preparation) .....	\$ 300.00/Test
Standard Proctor Test (D-698).....	\$ 125.00/Test
California Bearing Ratio (CBR) Test.....	\$ 200.00/Test
Corrosion Suite (pH, Resistivity, Chloride, Sulfate, Redox Potential, Sulfide tests) .....	\$ 200.00/Test
Logging and Stratification of Boring Logs.....	\$ 85.00/Hour

*\*Plus \$60.00 for Each Plotted Time Curve and \$110.00 for Each Additional Unload/Reload Cycle*

### **III. ENGINEERING**

Senior Project Geotechnical Engineer (Registered).....	\$ 130.00/Hour
Project Geotechnical Engineer II .....	\$ 115.00/Hour
Project Geotechnical Engineer .....	\$ 105.00/Hour
Project Professional II/Geologist.....	\$ 85.00/Hour
CAD Operator II.....	\$ 70.00/Hour
Clerical/Administrative Staff .....	\$ 49.00/Hour

## MASTER SERVICES AGREEMENT

### TASK ORDER

This **TASK ORDER** is issued under the **MASTER SERVICES AGREEMENT** (dated 11/10/2014, agreement reference number MSA 01147095) between Harper County ("Client") and Terracon Consultants, Inc. ("Consultant") for Services to be provided by Consultant for Client on the Harper Co. Road Improvement Project - 16 1/2 Miles project ("Project"), as described in the Project Information section of the Consultant's Task Order Proposal dated 09/23/2016 ("Task Order Proposal") unless the Project is otherwise described below or in Exhibit A to this Task Order (which section or Exhibit are incorporated into this Task Order). This Task Order is incorporated into and part of the Master Services Agreement.

#### 1. Project Information

Please see Terracon Proposal No. P01165150 – Revision A

#### 2. Scope of Services

The scope of Services to be provided under this Task Order are described in the Scope of Services section of the Consultant's Task Order Proposal, unless Services are otherwise described below or in Exhibit B to this Task Order.

Please see Terracon Proposal No. P01165150 – Revision A

#### 3. Compensation

Client shall pay compensation for the Services performed at the fees stated in the Task Order Proposal unless fees are otherwise stated below or in Exhibit C to this Task Order.

Please see Terracon Proposal No. P01165150 – Revision A

All terms and conditions of the **Master Services Agreement** shall continue in full force and effect. This Task Order is accepted and Consultant is authorized to proceed.

Consultant: **Terracon Consultants, Inc.**  
 By: \_\_\_\_\_ Date: **9/23/2016**  
 Name/Title: **George A Tannoury / Department Manager II**  
 Address: **1815 S Eisenhower St**  
**Wichita, KS 67209-2810**  
 Phone: **(316) 262-0171** Fax: **(316) 262-6997**  
 Email: **George.Tannoury@terracon.com**

Client: **Harper County**  
 By: \_\_\_\_\_ Date: \_\_\_\_\_  
 Name/Title: \_\_\_\_\_  
 Address: **103 W. Steadman St**  
**Anthony, KS 67003**  
 Phone: \_\_\_\_\_ Fax: \_\_\_\_\_  
 Email: \_\_\_\_\_

Reference Number: P01165150 - Revision A